Remarks

Claims 1-12 are pending. Claims 1-12 are rejected. All rejections are respectfully traversed.

Figures 1 and 4 have been corrected. Replacement sheets for Figures 1 and 4 are filed herewith.

Informalities in claims 1, 5, 11 and 12 have been corrected.

Claim 2 has been corrected to overcome a 35 U.S.C. 112 rejection.

 Claims 1-8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Stanforth et al. (U.S. Patent # 7,151,769 B2).

Stanforth describes an Ad hoc On Demand Distance Vector (AODV) routing. AODV constructs routes only as needed. The routes are stored in the memory of each node for later use. This consumes memory resources and power, particularly if there are a large number of routes and the routes have a large number of intermediate nodes. The stored routing table is updated only when the battery status changes, which can make the route information rapidly out-of-date, particularly because the network is ad hoc, where nodes can enter and leave the network at any time.

The claimed packet routing uses dynamic source routing (DSR). DSR has the following advantages. First, the DSR is 'loop-free' because each packet includes a complete, ordered list of addresses of nodes that form the route.

Being loop-free means packets cannot circle endlessly in a loop. Second, because the routing information carried in each packet, the routing information does not need be stored in the memory of the nodes. This greatly reduced the memory requirements at each of the nodes. Third, the routing information is always current because each packet updates the routing table in the packet as the packet is forwarded along the route.

Stanford cannot anticipate what is claimed.

Stanford does not describe DSR routing. Stanford does not describe routing tables stored in packets as each packet is transmitted. Sanford does not describe updating the routing table in each packet each time the packet is transmitted as the packet is forwarded along the route.

Stanford does not describe including the least delay cost in each packet.

Stanford does not describe including a time stamp indicating a time that the particular route was discovered in each packet.

Stanford does not describe ad-hoc on-demand distance vector routing that stores the routing in each packet.

10. Claims 3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanforth et al. (U.S. Patent # 7,151,769 B2) in view of Cain (U.S. Patent # 6,961,310 B2).

Cain describes a timer used to indicate when the route expires.

Ranking the discovered routes preferably includes storing route entries in a route cache or table. Each of the route entries corresponds to one of the discovered routes. Also, each,route entry may include a metric value, a usage factor indicating how much of the message data should be distributed to the corresponding route, and a timer for expiring the discovered route. Some or all of the route entries may be repeated for different classes of message data/traffic, such as, delay sensitive traffic and/or large volume traffic, for

example.

The timer as described above and the claimed timer operated quire differently. First the timer has nothing to do with when the route was first discovered. The timer can be set to some arbitrary value, e.g. 1 hour, which has nothing to do with the discovery time. Second, the time can be set at any time, before or after the route is discovered, so the time does not reveal the discovery time. Third, with a timer as described above, the route expires when the timer runs out. The nodes have no control over route expiration. In contrast, with the claimed time of route discovery, the route has no automatic expiration time. Nodes can decide themselves whether or not to use the route.

In addition, claimed is associating a time of discovery with each route, and selecting the particular route having a most recent time of discovery, and including a time stamp indicating the time that the particular route was discovered in the routing table in each packet. Cain does not describe the selecting and including steps for his timer.

Cain does not describe using ad-hoc on-demand distance vector routing, and including the routing table in each transmitted packet.

For claims 11 and 12, see the traversal of claim 1 above.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicants' attorney at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted, Mitsubishi Electric Research Laboratories, Inc.

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